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10/632,972	08/04/2003	Koichiro Wanda	00862.023168	2997

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EXAMINER
MURPHY, DILLON J

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
	10/632,972	WANDA, KOICHIRO
Office Action Summary	Examiner	Art Unit	
	Dillon J. Murphy	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>04 August 2003</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>04 August 2003</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>7/17/06, 9/2/03</u>.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 21-24 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 21-24 are drawn to functional descriptive material NOT claimed as residing on a computer readable medium. MPEP 2106.IV.B.1(a) (Functional Descriptive Material) states:

"Data structures not claimed as embodied in a computer-readable medium are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer."

"Such claimed data structures do not define any structural or functional interrelationships between the data structure and other claimed aspects of the invention which permit the data structure's functionality to be realized."

Claims 21 and 22, while defining a computer program, do not define a "computer-readable medium" and is thus non-statutory for that reason. A computer program can range from paper on which the program is written, to a program simply contemplated and memorized by a person. Claims 23 and 24, while defining a storage medium storing a computer program, do not define a "computer-readable medium" and is thus not statutory for that reason. The examiner suggests amending the claim to embody the program on "computer-readable medium" in order to make the claim statutory.

"In contrast, a claimed computer-readable medium encoded with the data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory." - MPEP 2106.IV.B.1(a)

Specifically, the examiner recommends the following as an example of statutory claim language: "**A computer-readable medium encoded with a computer program...**".

NOTE: Refer to Annex IV, section (a) of the USPTO "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility", Official Gazette notice of 22 November 2005 (currently at http://www.uspto.gov/web/offices/com/sol/og/2005/week47/patgupa.htm).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 6, 7, 10, 11, 16, 17, and 20-24 are rejected under 35 U.S.C. 102(e) as being anticipated by Shimada (US 7,221,465).

Regarding claims 1 and 11, Shimada teaches an output management method and an information processing apparatus (Shimada, fig 1 and col 3, ln 26-38, server #60), which can communicate with a first output apparatus having a copying function of printing based on a scanned document image (Shimada, fig 1, copying machine #40. Also see col 7, ln 30-55, wherein copier scans in originals and performs printing on image data according to a normal routine), and a second output apparatus having a print function of printing image data transmitted from an external device in a predetermined format (Shimada, fig 1, printers #31 and #32. See col 4, ln 54-61 and col 5, ln 13-21 for normal printing operation), and comprises a server function of managing output jobs in the first and second output apparatuses (Shimada, col 3, ln 32-36, wherein server manages operations and states of each of the output apparatus), comprising:

First acquisition means for acquiring first output job information of a copy job to be executed by the first output apparatus (Shimada, col 4, ln 1-16, wherein receiving job information from the copying machine if a problem occurs reads on the server acquiring information of a job to be executed by copying machine);

Detection means for detecting occurrence of any obstacle that disturbs execution of a job during execution of an output job (Shimada, col 4, ln 7-29, wherein when the copying machine encounters an obstacle the print data is sent to the server. This transmission reads on a detection means for detecting an occurrence of an obstacle. The server analyzes print job data received from a client computer or copying machine); and

Substitution output means for controlling the second output apparatus to execute a substitution print process based on the first output job information upon detection of occurrence of the obstacle during execution of the output job in the first output apparatus by said detection means (Shimada, col 8, ln 1-5 and col 8, ln 29-37, wherein the second printer is controlled to execute a substitution print process when there is trouble with the first copying machine detected by the server).

Regarding claims 16 and 6, which depend from claims 11 and 1, respectively, Shimada teaches an output management method and an information processing apparatus wherein the first output job information contains management information used to manage the output job and/or image data to be output (Shimada, col 7, ln 31-46, wherein color conversion information reads on first output job information which is used to manage the output job and image data).

Regarding claims 17 and 7, which depend from claims 11 and 1, respectively, Shimada teaches an output management method and an information processing apparatus wherein said substitution output means converts a format of image data based on the first output job information into a format that the second output apparatus

can process (Shimada, col 8, ln 1-20, wherein the print data is converted into a format that the second output apparatus can process, wherein the conversion is based upon the color information to provide consistent color, for example).

Regarding claims 20 and 10, respectively, Shimada teaches an output management method and an information processing apparatus (Shimada, fig 1 and col 3, ln 26-38, server #60) which can communicate with a first output apparatus having a copying function of printing based on a scanned document image (Shimada, fig 1, copying machine #40. Also see col 7, ln 30-55, wherein copier scans in originals and performs printing on image data according to a normal routine), and a second output apparatus having a print function of printing image data transmitted from an external device in a predetermined format (Shimada, fig 1, printers #31 and #32. See col 4, ln 54-61 and col 5, ln 13-21 for normal printing operation), comprising:

Detection means for detecting an obstacle of a copy job to be executed by the first output apparatus (Shimada, col 4, ln 7-29, wherein when the copying machine encounters an obstacle the print data is sent to the server. This transmission reads on a detection means for detecting an occurrence of an obstacle. The server analyzes print job data received from a client computer or copying machine); and

Substitution process means for executing the copy job in the first output apparatus as a print job in the second output apparatus upon detection of the obstacle by said detection means (Shimada, col 8, ln 1-5 and col 8, ln 29-37, wherein the second printer is controlled to execute a substitution print process when there is trouble with the first copying machine detected by the server. Substitute output device may be a printer

such as printer 32, for example, thus the copy joy of the first apparatus is a print job for

the second apparatus).

Claims 21 and 23 recite identical features as claim 11 except claims 21 and

23 are computer readable medium claims. Thus, arguments similar to that presented

above for claim 11 are equally applicable to claims 21 and 23. Applicant's attention is

further invited to col 4, ln 26-29 for a program disclosed by Shimada.

Claims 22 and 24 recite identical features as claim 20 except claims 22 and

24 are computer readable medium claims. Thus, arguments similar to that presented

above for claim 20 are equally applicable to claims 22 and 24. Applicant's attention is

further invited to col 4, ln 26-29 for a program disclosed by Shimada.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

Claims 2 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Shimada (US 7,221,465) in view of Mori et al. (JP 2000-259378).

Regarding claims 12 and 2, which depend from claims 11 and 1, respectively,

Shimada teaches an output management method and an information processing

apparatus having a server functions communicating with a first and second output

apparatus, the information processing apparatus comprising a first acquisition means,

detection means, and substitution output means. Shimada additionally teaches an

information processing apparatus wherein said detection means monitors occurrence of

an obstacle by monitoring based on the first output job information (Shimada, fig 6,

wherein detection is based on monitoring the first output job information, S39-S41).

Shimada does not disclose expressly an information processing apparatus further

comprising notification means for notifying an external client computer of a monitoring

result based on monitoring of said detection means. However, Mori teaches an

information processing apparatus comprising notification means for notifying an external

client computer of a monitoring result based on monitoring of said detection means

(Mori, fig 1, wherein server #4 monitors status of copier #1 and printer #8. Client

computer is shown as #7. See paragraphs 23-28 for network device description. In

paragraphs 54-57, when a failure occurs in a printer of copier, a substitute printer is

selected and the print job is transferred. When this occurs, server #4 sends a message

to the computer #7 stating the reason for the printer error).

At the time of the invention it would have been obvious to a person of ordinary

skill in the art to combine the notification means of Mori with the output management

method and an information processing apparatus having a server functions

communicating with a first and second output apparatus, the information processing

apparatus comprising a first acquisition means, detection means, and substitution

output means. The motivation for doing so would have been to give a notice to a user

that a printer is in an abnormal condition, and to promptly reassign printing so as not to

delay image output (Mori, paragraph 111 and 112). Therefore, it would have been

obvious to combine Mori with Shimada to obtain the invention as specified in claims 12

and 2.

Claims 3-5 and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Shimada (US 7,221,465) in view of Yacoub (US 6,552,813).

Regarding claims 13 and 3, which depend from claims 11 and 1, respectively,

Shimada teaches an output management method and an information processing

apparatus having a server functions communicating with a first and second output

apparatus, the information processing apparatus comprising a first acquisition means,

detection means, and substitution output means. Shimada does not disclose expressly

an information processing apparatus further comprising update means for reflecting the

first output job information onto a second job output queue of the second output

apparatus, and wherein the substitution output means transmits a job on the basis of

the second job output queue updated by said update means. However, Yacoub

teaches and information processing apparatus (Yacoub, fig 5, server #680 and col 12,

In 8-24, wherein server performs print processing) further comprising update means for

reflecting the first output job information onto a second job output queue of the second

output apparatus (Yacoub, col 6,In 60-65, wherein user's preferences, which read on

first output job information are used to queue a job. In col 4, In 55-58, a printer that is

not busy or least busy reads on a printer queue. When there is an error in printing, the

job is updated from a first output job queue onto a second output job output queue, fig

3, #370 and #380), and wherein the substitution output means transmits a job on the

basis of the second job output queue updated by said update means (Yacoub, fig 3, and

col 7, ln 18-36, wherein transmitting the job to the second printer with the preferences

defined by the user reads on transmitting a job on the basis of the second job output

queue).

At the time of the invention it would have been obvious to a person of ordinary

skill in the art to combine the information processing apparatus of Yacoub comprising

update means and wherein the substitution means transmits a job on the basis of the

queue updated by the update means with the output management method and

information processing apparatus of Shimada having a server functions communicating

with a first and second output apparatus, the information processing apparatus

comprising a first acquisition means, detection means, and substitution output means.

The motivation for doing so would have been to ensure that in the event of an error a

job is printed automatically (Yacoub, col 1, ln 66- col 2, ln 2). Therefore, it would have

been obvious to combine Yacoub with Shimada to obtain the invention as specified in

claims 13 and 3.

Regarding claims 14 and 4, which depend from claims 13 and 3, respectively, the

combination of Shimada and Yacoub (as combined in claim 13) teaches an output

management method and an information processing apparatus wherein the first output

job information contains first order information (Shimada, col 7, ln 38-55, wherein the

initial copying contains CMYK data and print data, which reads on first order

information), and said update means updates the second job output queue on the basis

of the first order information (Shimada, col 7, ln 59-67, wherein when a failure occurs,

the remaining print data and control information is transferred to the server to be output

by a substitute printer. See Yacoub, col 4, ln 55-58, wherein printing devices that are

busy or least busy read on output devices with an output queue), and second order

information of a job in the second output apparatus (Shimada, col 8, ln 6-15, wherein

the second order information is generated for the second output queue, as taught by

Yacoub, and sent to the second output apparatus).

Regarding claims 15 and 5, which depend from claims 13 and 3, respectively, the

combination of Shimada and Yacoub (as combined in claim 13) teaches an output

management method and an information processing apparatus further comprising

suppression means for suppressing registration of the copy job acquired by said first

acquisition means in a job output queue on the basis of the first output job information

(Yacoub, col 5,ln 27-34, wherein user preferences are used to select printers, wherein

user preferences read on first output job information. When there is an error in the

printer (fig 3, #370), the substitute printer is chosen that meets the criteria selected by

the user (fig 3, #380). If a printer does not meet the criteria, e.g. the first output job

information specifies a color job; the printers only offering monochrome printing are

suppressed. This reads on a suppressing means for suppressing registration in an

output queue. Also see col 4, ln 55-58, wherein printers in various states of business

read on printers with output queues), and wherein said update means executes a

registration process of the copy job to the second job output queue based on the first

output job information by said detection means (Yacoub, fig 3, #370 and #380 and col 7,

ln 18-27, wherein when there is an error in printing, the job is updated from a first output

job queue onto a second output job output queue based on original preferences, which read on output job information).

Claims 8, 9, 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimada (US 7,221,465) in view of Nishiwaki (JP 09-081338).

Regarding claims 18 and 8, which depend from claims 11 and 1, respectively, Shimada teaches an output management method and an information processing apparatus having a server functions communicating with a first and second output apparatus, the information processing apparatus comprising a first acquisition means, detection means, and substitution output means. Shimada does not disclose expressly an information processing apparatus further comprising further comprising determination means for determining in accordance with setup information set by a user in advance whether or not a substitution process is to be executed for each output job type, and wherein the substitution process of said substitution output means is executed based on a determination result of said determination means. However, Nishiwaki teaches an output management method and an information processing apparatus (Nishiwaki, fig 1 and paragraph 10, wherein server #10 reads on an information processing apparatus) further comprising determination means for determining in accordance with setup information set by a user in advance whether or not a substitution process is to be executed for each output job type (Nishiwaki, paragraph 13-16 and table 1, wherein setting a time to allow to fix a failure reads on not performing substitution processing, while immediately performing substitution processing, e.g. for a

motor failure, reads on performing substitution processing. Print processing reads on

an output type), and wherein the substitution process of said substitution output means

is executed based on a determination result of said determination means (Nishiwaki,

paragraph 4, wherein substitution is processing based upon determination of

information set by user, i.e. length of time to wait until substitution or immediate

substitution).

At the time of the invention it would have been obvious to a person of ordinary

skill in the art to combine the information processing apparatus of Nishiwaki comprising

determination means for determining whether or not to perform a substitution process

with the output management method and information processing apparatus of Shimada

having a server functions communicating with a first and second output apparatus, the

information processing apparatus comprising a first acquisition means, detection

means, and substitution output means. The motivation for doing so would have been to

increase productivity while allowing a user to try to fix an output device in the event of a

failure (Nishiwaki, paragraphs 17-19). Therefore, it would have been obvious to

combine Nishiwaki with Shimada to obtain the invention as specified in claims 18 and 8.

Regarding claims 19 and 9, which depend from claims 18 and 8, respectively, the

combination of Shimada and Nishiwaki (as combined in claim 18) teaches an output

management method and an information processing apparatus wherein the setup

information contains information of an obstacle that may occur for each output job type,

and execution/non-execution of a substitution process upon occurrence of that obstacle

(Nishiwaki, paragraphs 13-16, wherein for the printing output type, if a motor failure

occurs or the paper is empty, for example, a specific execution/non-execution of a

substitution process parameter is associated with the obstacle.

Conclusion

The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

The Takeshita reference (JP 07-225660) is cited for teaching a fault recovery

printing in a printing system. The Idehara reference (US 2001/0052995) is cited for

teaching a graphical user interface for substitution printing. The Takeda et al. reference

(US 5,845,057) is cited for teaching substitution printing based upon the output type and

obstacle type. The examiner notes the Shimada reference (JP 2000-351241), cited by

Applicant in the Information Disclosure Statement filed July 17, 2006, corresponds to

the US Patent Shimada reference (US 7,221,465).

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Dillon J. Murphy whose telephone number is (571) 272-

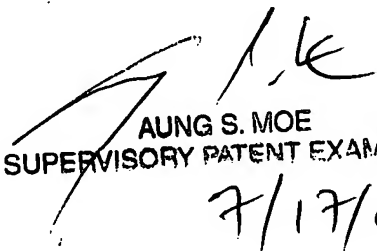5945. The examiner can normally be reached on M-F, 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Aung Moe can be reached on (571) 272-7314. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

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USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Dillon Murphy
July 12, 2007

AUNG S. MOE
SUPERVISORY PATENT EXAMINER
7/17/07.